

Notice of Allowability

Application No.

09/711,651

Examiner

William C. Choi

Applicant(s)

NITO ET AL.

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Amendment filed 10/10/2003.
2. ☒ The allowed claim(s) is/are 6-8, 10, 13-15, 19, 74-85, 111-113, 115, 118-120, 124 and 150-164.
3. ☒ The drawings filed on 13 November 2000 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.
5. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
 - (a) ☐ The translation of the foreign language provisional application has been received.
6. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

7. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
8. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No. _____.
 - (b) ☐ including changes required by the proposed drawing correction filed _____, which has been approved by the Examiner.
 - (c) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No. _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the margin according to 37 CFR 1.121(d).

9. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| 1 <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5 <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2 <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6 <input checked="" type="checkbox"/> Interview Summary (PTO-413), Paper No. <u>1203</u> |
| 3 <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No. <u>1103</u> | 7 <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4 <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material | 8 <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9 <input type="checkbox"/> Other |


RICKY MACK
PRIMARY EXAMINER

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with David Crawford on December 24, 2003.

The application has been amended as follows:

1. Cancel claims 1-5, 20-72, 87-110 and 125-148.
2. Claim 157, line 2, delete "149" and insert therein --156--.
3. Claim 157, line 2, delete "152" and insert therein --156--.
4. Claim 6, line 1, delete "A light modulation" and insert therein --An image pickup--.
5. Claim 111, line 1, delete "a light modulation" and insert therein --an image pickup--.

Allowed Claims: 6-8, 10, 13-15, 19, 74-85, 111-113, 115, 118-120, 124 and 150-164.

REASONS FOR ALLOWANCE

The following is an examiner's statement of reasons for allowance: none of the prior art either alone or in combination disclose or teach of the claimed combination of limitations to warrant a rejection under 35 USC 102 or 103. The best cited reference,

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Furukawa et al (U.S. 6,411,576 B1) fails to meet the limitations of that of the claimed invention.

Specifically, with respect to independent claim 6, Furukawa et al fails to disclose an image pickup apparatus as claimed specifically wherein luminance information of light emerged from the liquid crystal device is fed back to the control circuit unit, and the pulse width of each drive pulse is modulated in synchronization with a clock generated by said drive circuit unit on the basis of a control signal supplied from said control circuit unit..

Specifically, with respect to independent claims 74-76, 150-152 and 162 Furukawa et al fails to disclose a guest-host type liquid crystal device or controlling a transmittance of light made incident on the liquid crystal device.

Specifically, with respect to independent claim 80, Furukawa et al fails to disclose an image pickup apparatus as claimed specifically wherein said liquid crystal device is a guest-host type liquid crystal device.

Specifically, with respect to independent claims 83 and 159, Furukawa et al fails to disclose an image pickup apparatus and a method of driving as claimed, specifically wherein a polarizing plate is disposed in an optical path of light made incident on the liquid crystal device.

Specifically, with respect to independent claim 84, Furukawa et al fails to disclose an image pickup apparatus as claimed specifically wherein said polarizing plate is movable in or from the optical path.

Specifically, with respect to independent claim 111, Furukawa et al fails to disclose a method of driving an image pickup apparatus including a liquid crystal device as claimed specifically wherein luminance information of light emerged from the liquid crystal device is fed back to the control circuit unit, and the pulse width of each drive pulse is modulated in synchronization with a clock generated by said drive circuit unit on the basis of a control signal supplied from said control circuit unit.

Specifically, with respect to independent claim 155, Furukawa et al fails to disclose a method of driving an image pickup apparatus as claimed specifically wherein the pulse width of each drive pulse is modulated in synchronization with a clock generated by a drive circuit unit on the basis of a control signal supplied from a control circuit unit.

Specifically, with respect to independent claim 156, Furukawa et al fails to disclose a method of driving an image pickup apparatus as claimed specifically wherein said liquid crystal device is a guest-host type liquid crystal device.

Specifically, with respect to independent claim 163, Furukawa et al fails to disclose a light modulation apparatus as claimed specifically comprising a polarizing plate that is disposed in a movable portion of a mechanical iris in a manner whereby it is movable in or from the optical path by operation of said movable portion of said mechanical iris.

Specifically, with respect to independent claim 164, Furukawa et al fails to disclose a method of driving a light modulation apparatus as claimed specifically wherein a polarizing plate is disposed in a movable portion of a mechanical iris in a

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manner whereby it is movable in or from the optical path by operation of said movable portion of said mechanical iris.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

CITATION OF RELEVANT PRIOR ART

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Ohwada et al (U.S. 4,818,077) is being cited herein to show a pulse width modulated liquid crystal device but does not specifically disclose wherein it is disposed in the optical path of an optical system of an image pickup apparatus.

CONCLUSION

Therefore, due to the reasons cited above, Furukawa et al teaches away from that of the claimed invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William C. Choi whose telephone number is (703) 305-3100. The examiner can normally be reached on Monday-Friday from about 9:00 am to 6 pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Y. Epps can be reached on (703) 308-4883. The fax phone

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numbers for the organization where this application or proceeding is assigned are (703) 305-3431 for regular communications and (703) 305-3432 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

W.C.
William Choi
Patent Examiner
Art Unit 2873
December 24, 2003


RICKY MACK
PRIMARY EXAMINER